



XTRP Shutdown Plans

Event : 532 Run : 168768 EventType : DATA Unpresc: 1,2,4,9,23 Presc:

- XTRP:

- Readout errors
- Phi-gap maps
 - correct layout error w/software
- IMU maps
 - can't cross wedge boundaries

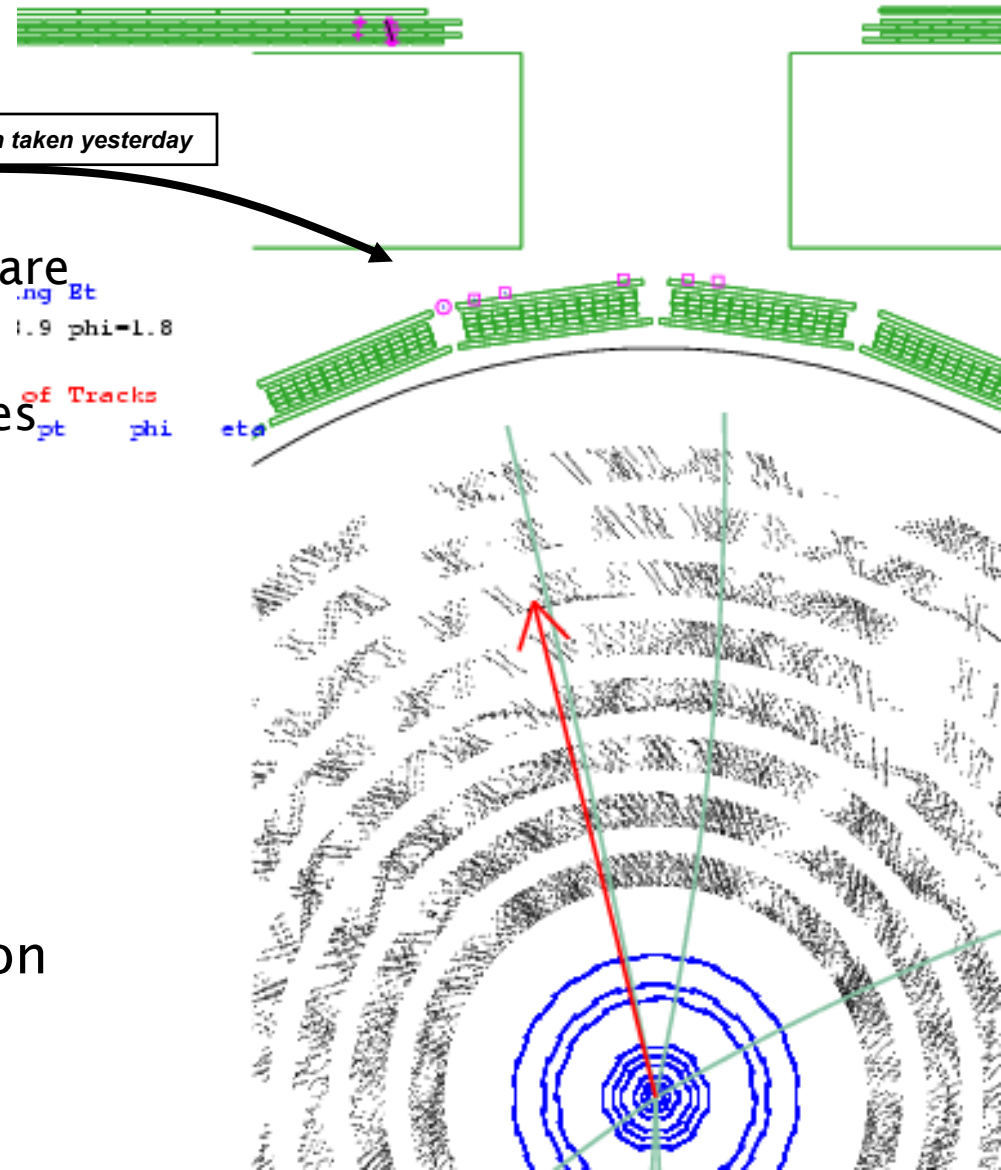
Phi-gap test run taken yesterday

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1.9 phi=1.8

of Tracks
pt phi eta

- Three-track trigger:

- Evaluate test-run
- Additional no-beam tests
 - Load fake data
- Coldstart/front-end code
- Trigger DB/lookup generation
- Trigmon





XTRP Shutdown Plans

- XTRP:
 - Readout errors (Kasten/Kraus/Taffard)
 - Phi-gap maps (Pitts)
 - Correct layout error w/software
 - IMU maps (Pitts+Ginsburg/Cyr)
 - can't cross wedge boundaries
- Three-track trigger:
 - Evaluate test-run (Marino)
 - more no-beam tests (Marino/Kraus/Kasten)
 - Load fake data
 - Coldstart/front-end code (Taffard)
 - Trigger DB/lookup generation (Marino)
 - Trigmon (Marino/Pitts)



XTRP Readout Errors

- XTRP diagnostic readout:
 - Input track data (from XFT)
 - Calorimeter extrapolation info (DIRAC)
 - Two-track trigger bits
- **Readout errors (few per 1000 events)**
 - Show up as data/sim mismatches in TRIGMON
 - **We have verified repeatedly that trigger data is good**
 - Errors likely caused by conflict between L1A & L2A or L1A & token
 - Conflict prevents data to be written to L2 buffer
 - On readout, the buffer contains stale data
 - Problem:
 - Error is “gone” by the time you can spot it (e.g. BC mismatch)
 - Not seen in simulation
 - Good news: Errors show up in L2 torture



XTRP Readout Errors

Plan

- Fake-data run in calib mode
 - Turn on BC mismatch checking in crate controller.
 - Scan event Δt to find time when collisions occur.
 - If this works, it will tell us where the collision is and what to look for.
 - Spy on relevant lines to see where conflict or 'glitch' occurs.
- L2 torture
 - Change L1A and L2A rate
 - Change # of words read out (and readout time)

Request

- Need crate for one day soon (standalone + L2 torture)
- Need crate for a second day a week or two later
 - Come back with new firmware and/or additional tests